

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P843356

Luminaire Tested: 24CGSB-80-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843356
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-80-L835
 Description: 2x4 CGSB AT 8000LM 3500K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

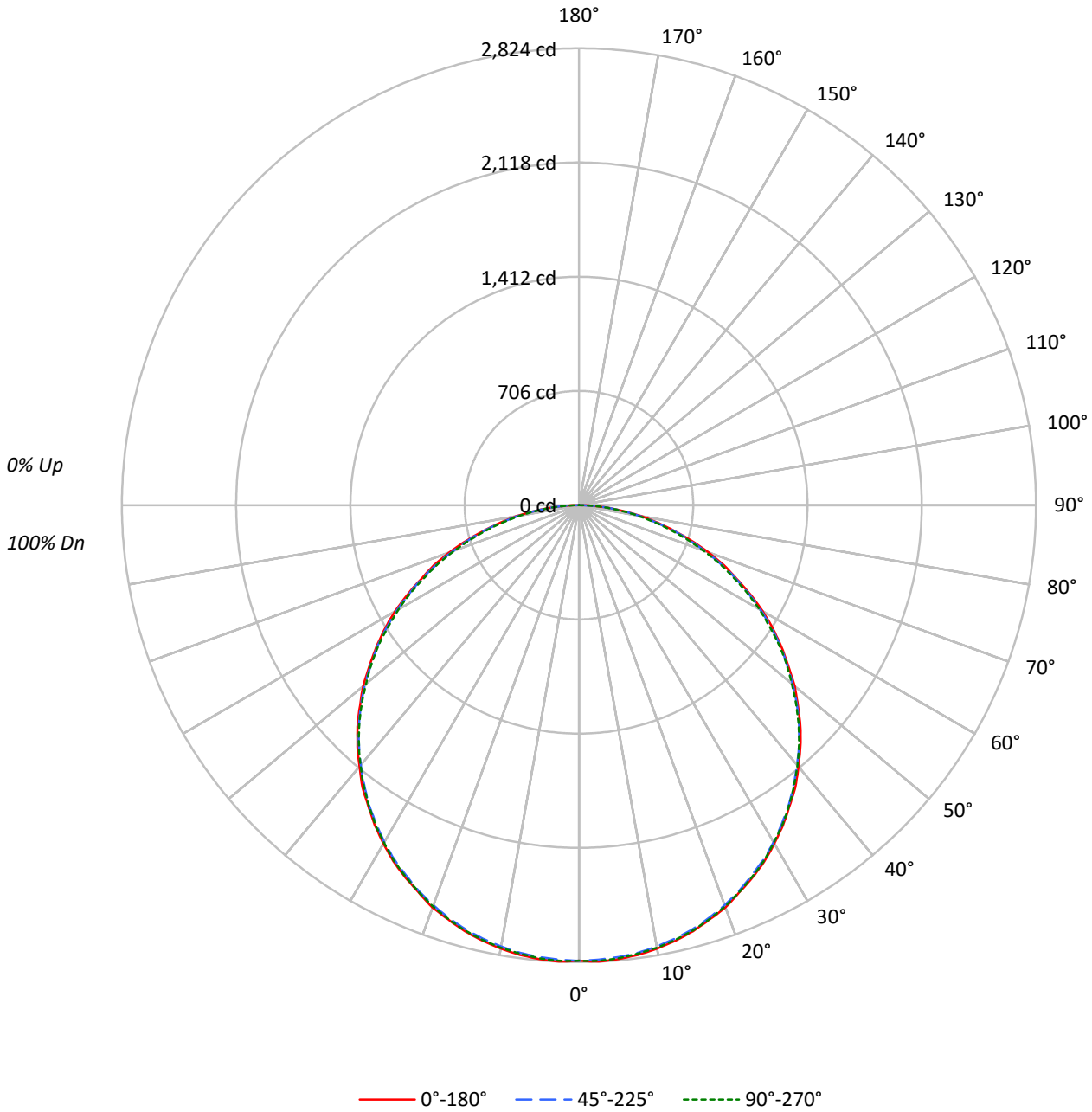
Lumens per Lamp: N/A
 Luminaire Lumens: 8331.7 lumens
 Efficiency: N/A
 Efficacy: 124.5 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 66.9
 Input Voltage (V): 120
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3789	3789	3789
5°	3803	3786	3796
10°	3802	3784	3795
15°	3797	3780	3790
20°	3790	3767	3778
25°	3769	3750	3761
30°	3753	3737	3741
35°	3727	3715	3719
40°	3706	3684	3688
45°	3683	3659	3654
50°	3643	3611	3595
55°	3583	3565	3547
60°	3530	3489	3461
65°	3416	3392	3343
70°	3343	3252	3201
75°	3163	3123	3016
80°	3023	2924	2805
85°	2695	2655	2458

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3683 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.9	3.2
10°-20°	766.7	9.2
20°-30°	1166.7	14.0
30°-40°	1416.1	17.0
40°-50°	1483.1	17.8
50°-60°	1355.2	16.3
60°-70°	1053.2	12.6
70°-80°	631.6	7.6
80°-90°	192.1	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2200.3	26.4
0°-40°	3616.4	43.4
0°-60°	6454.7	77.5
0°-90°	8331.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8331.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2816	2816	2816	2816	2816	
5°	2816	2808	2803	2803	2811	268
15°	2726	2716	2713	2713	2721	769
25°	2539	2528	2526	2528	2534	1171
35°	2269	2264	2262	2262	2264	1422
45°	1936	1925	1923	1920	1920	1491
55°	1527	1522	1520	1507	1512	1366
65°	1073	1070	1065	1052	1050	1069
75°	608	606	601	590	580	647
85°	175	172	172	167	159	196
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2816.0	2816.0	2816.0	2816.0	2816.0
2.5°	2823.7	2813.5	2810.9	2810.9	2818.6
5°	2816.0	2808.3	2803.2	2803.2	2810.9
7.5°	2803.2	2792.9	2790.4	2790.4	2795.5
10°	2782.7	2775.0	2769.8	2769.8	2777.5
12.5°	2757.0	2746.7	2744.2	2746.7	2751.9
15°	2726.2	2715.9	2713.4	2713.4	2721.1
17.5°	2685.1	2677.4	2674.9	2674.9	2682.6
20°	2646.6	2633.8	2631.2	2633.8	2638.9
22.5°	2590.1	2585.0	2582.4	2585.0	2587.6
25°	2538.8	2528.5	2526.0	2528.5	2533.7
27.5°	2482.3	2472.1	2469.5	2469.5	2477.2
30°	2415.6	2407.9	2405.3	2405.3	2407.9
32.5°	2346.3	2341.1	2333.4	2336.0	2341.1
35°	2269.3	2264.1	2261.6	2261.6	2264.1
37.5°	2197.4	2187.1	2179.4	2179.4	2184.6
40°	2110.1	2105.0	2097.3	2099.8	2099.8
42.5°	2025.4	2017.7	2012.6	2010.0	2012.6
45°	1935.5	1925.3	1922.7	1920.1	1920.1
47.5°	1835.4	1835.4	1827.7	1822.6	1820.0
50°	1740.5	1730.2	1725.1	1717.4	1717.4
52.5°	1630.1	1627.5	1619.8	1617.2	1617.2
55°	1527.4	1522.3	1519.7	1506.9	1512.0
57.5°	1422.1	1411.9	1409.3	1401.6	1396.5
60°	1311.8	1306.6	1296.4	1286.1	1286.1
62.5°	1193.7	1191.1	1180.8	1173.1	1170.6
65°	1073.0	1070.5	1065.3	1052.5	1049.9
67.5°	970.3	960.1	947.2	937.0	937.0
70°	849.7	836.9	826.6	816.3	813.8
72.5°	726.5	718.8	713.6	703.4	695.7
75°	608.4	605.8	600.7	590.4	580.2
77.5°	498.0	495.4	482.6	474.9	467.2
80°	390.2	379.9	377.4	367.1	362.0
82.5°	274.7	279.8	267.0	264.4	261.8
85°	174.6	172.0	172.0	166.9	159.2
87.5°	77.0	79.6	79.6	79.6	79.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)